Charge for the Fermilab Director's/DOE Fermi Site Office's Earned Value Management System Review of the DECam Project December 18-19, 2007

This charge is for the Committee to conduct the Fermilab Director's/Department of Energy Fermi Site Office's Earned Value Management System Review of the proposed DECam project at Fermilab. This review is to ensure that the DECam Project will employ an Earned Value Management System that meets the objectives of ANSI/EIA-748-A-1998 32 Guidelines in accordance with DOE O 413.3A and DOE M 413.3-1. This review is to ensure that policies, procedures, systems and practices for controlling and reporting of project performance is in place no later than CD-2.

The Dark Energy Survey (DES) Collaboration proposes to build a new 519 megapixel CCD camera (DECam) to be mounted at the prime focus of the Blanco 4m telescope at CTIO. The DECam Project is hosted by Fermi National Accelerator Laboratory (Fermilab) and is the project which will construct the camera. The DECam Project includes a large mosaic camera, a five element optical corrector, a multi-band filter system, and the associated infrastructure for operation in the prime focus cage. The focal plane consists of 62 2048 x 4096 CCD modules (0.27arcsecond/pixel) arranged in a hexagon inscribed within the 2.2 deg. diameter field of view. The project plans to use the thick fully-depleted CCDs that have been developed at the Lawrence Berkeley National Laboratory (LBNL) in order to obtain the best available quantum efficiency at near-infrared wavelengths.

The Dark Energy Survey project received Critical Decision CD-1 "Approved Alternative Selection & Cost Range" on October 15, 2007. A Fermilab Director's CD-2/3a Review, co-chaired by Ed Temple and Rich Kron, is scheduled for December 11-13, 2007 and the DOE/NSF Review is scheduled for January 29-31, 2008.

The focus of this review is to assess whether DECam is compliant with the performance management system standard as defined in DOE M 413.3-1. This review is to self-certify DECam's Earned Value Management System, which should be aligned with the Lab Wide Certified System that is in the process of being documented. The committee is to specifically address the following items during this review:

- 1. Is the system effectively documented?
- 2. Will the system produce timely and accurate reports in a readable and meaningful format?
- 3. Will the system satisfy Fermilab's and DOE's information needs?
- 4. Are the relevant personnel adequately knowledgeable about operation of the system and do they make use of the information?
- 5. Does the DECam Project meet the objectives of the ANSI/EIA-748-A-1998 EVMS Guidelines under the:
 - a. Organization category?
 - b. Planning, Scheduling and Budgeting category?
 - c. Accounting Considerations category?
 - d. Analysis and Management Reports category?
 - e. Revisions and Data Maintenance category?
- 6. Does the proposed performance management system meet current DOE Earned Value Management System (EVMS) assessment and reporting requirements?

Finally, the committee should present findings, comments, and recommendations at a closeout meeting with DECam's and Fermilab's management and provide a written report soon after the review.